The Boston Computer Society

The Boston Kugel

Kaypro, CP/M, Osborne
Supporting MS-DOS and CP/M

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The New Boskug Bulletin Board

by Jay Sage, Sysop

The new Boskug BBS is now pretty well established, and we encourage all Boskug members (and others as well) to call in. In this first article in a series, I will try to cover those points that a first-time user needs to know to register and begin to use the board's facilities.

As I write this, only one line is operational, but we expect to have the second access port ready by the time you are reading this. The only number most of you need to know is 617-965-7046. If that number is busy, the call will be directed automatically to the second line. Callers with US Robotics Courier HST modems who want to connect only at 9600 bps will need the second phone number; it will be posted on the board once our HST has been connected.

When the board answers your call, it greets you with a sign-on message and then asks *Do you want graphics (Enter) = no?* If you are calling from an MS-DOS machine with the ANSI.SYS driver or its equivalent active, then you can answer Y and press the return key; some system information will then be displayed using full-screen colored displays. Otherwise, answer N and press the return key, or just press the return key.

The number of the new Boskug BBS is 965-7046

Note that carriage returns are always needed to complete commands on this system, just as they are at your computer's operating system prompt. This prevents line noise from taking you on unintended and uncontrolled tours of the system! The default

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Boskug Presents

June 13, 1989 6:30 pm
Ottoson Jr High School
75 Acton Street, Arlington

CP/M We hope to have David Goodenough who will describe his public domain telecommunications package **QTERM.** This program is only tentative at press time.

MS-DOS A general meeting to decide where the MS-DOS subgroup should head in the next year. Some topics to discuss are meeting programs, public domain and bulletin board files, and newsletter articles. Present and prospective members are urged to put in their two cents' worth.

Director's Letter

Lee Lockwood

The Phantom Kugel

We apologize to our members for the long gap between issues of the *Kugel*.

A users group (for those who are still unaware) is run completely by volunteer labor. No job is more demanding or time-consuming than that of editing and producing the newsletter. In our case, this task falls mostly on the shoulders of one man, John Goldie, who assigns articles, badgers writers to send in what they promised they would, edits their copy, formats it, lays out

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MEMBERSHIP INFORMATION: BOSKUG is a volunteer group of owners who have banded together to share information and solve problems related to their computers, accessories and software.

BOSKUG meets on the second Tuesday of the month at the Greater Boston Educational Center (GBREC) located in the Ottoson Junior High School in Arlington Heights. Programs include lectures, panels, and open-ended discussions. Meeting notices are carried in the BCS UPDATE.

If you live more than 75 miles away and wish merely to subscribe to The Kugel, send $15 for a year's subscription to BOSKUG, 27 Howland Rd., W. Newton, MA 02165. Foreign subscriptions are $20 US. Please send change of address information to the BCS; enclose your old mailing label.

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BOSKUG and The Boston Kugel value your comments, opinions, and contributions. Please write to us, or call us with your thoughts.

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We want to thank Yale Goldman for his help and forbearance

Travel directions to BOSKUG

We are located at the Greater Boston Regional Education Center (GBREC pronounced "GA-BREC!"), in the Ottoson Junior High School, 75 Acton St., Arlington, MA. If you have any questions, you may call Dave Keeler at GBREC, 641-4870.)

By car

From Rte 128: Take Rt. 2 EAST 3.5 miles to Park Ave. exit. At the end of the ramp, turn LEFT at light onto Park Ave; go 0.6 miles, turn RIGHT onto Appleton St. Take fifth RIGHT onto Acton St. Acton St. dead-ends at Ottoson. Once inside, cross lobby; GBREC is one-half flight down.

From Storrow Drive: Follow Newton/Arlington signs to Rt. 2 WEST. Take Park Ave. exit, turn RIGHT onto Park Ave. Follow instructions above.

Via MBTA

From Harvard Sq: Take Bus #77 (ARLINGTON HEIGHTS) along Mass. Ave. Get off at Appleton St. (at St. James Catholic Church). Walk one block WEST on Appleton to Acton St. Walk LEFT on Acton to the Ottoson School (see above).

From Alewife Station: Take Bus #84 (ARLMONT VILLAGE) along Rt. 2 West and Park Ave. north. Get off at Appleton St., walk one block EAST to Acton, follow above instructions.

Laptops and Luggables

By Karen Rockow

Buying a laptop can be a daunting experience. The market has taken off in the last year or two (for reasons we'll discuss in a minute), and it has gone in several different directions at once.

In many ways, laptops are the most interesting segment of the DOS market. Here, IBM's influence has been least felt. In fact, IBM has been notoriously unsuccessful, first with its portable computer, later with its laptop. As a result, there has been great diversity of design. IBM wasn't around to dictate that a computer had to be a gray box with a monitor on top and a keyboard at the front. And because no single machine has achieved ascendancy, the laptop market is not yet flooded with low-cost Chinese clones. So far, there isn't anything to clone.

What is a Laptop?

For convenience, I've used the term "laptop" very loosely, lumping together a number of widely different types of computers. All of these machines are designed to be carried and have some sort of built-in display. Some have hard disks. Some have one or two floppy drives. A few have no drives at all. They fall into four main classes:

Notebook computers, like the old Radio Shack Model 100 and its successors, are usually flat (though they may have small tilt-up screens like the Epson Geneva), the size of spiral notebooks and very lightweight (2 or 3 lbs.). Most of these are not MS-DOS machines. No one is building these any more, except Clive Sinclair, who introduced his new Z88 recently.

Tilt-screen laptops with a "clamshell" configuration are the only true laptops, though most are too big and heavy for the human lap. Almost all of these are MS-DOS machines. Most are battery powered. This is the most active design arena. They range from 4 to almost 20 lbs.

Lunchbox or **toaster**-shaped computers are "old technology," with the exception of the Compaq and NEC Powermate portables. Weighing in around 20 lbs. and AC-powered, most of these use 5.25" drives. This is the only type of portable computer that has attracted the low-cost Chinese clone-makers in droves. So far.

Sewing machine box computers were pioneered by Osborne late in 1985. Followed by the CP/M Kaypro and the MS-DOS Compaq, Corona, and Columbia, these machines all had crt monitors, 9 inches or smaller. They weighed from 28-40 lbs. Notice that this description is written in the past tense, although you can still get a low-cost MS DOS clone in an old Compaq-style case, if that's what you want.

Came the Dawn

The first clamshell laptop, the Data General One, was introduced at the end of 1985. It had one major flaw; the screen was unreadable. Only in the last year has there been a realization that laptops aren't just toys for reporters and students, two constituencies not known for the type of affluence that attracts big business. Suddenly, the computer manufacturers have awakened to the fact that these machines also appeal to a far more lucrative audience of executives, consultants, and anyone who goes out into the field and wants to tote a computer. In addition, the new crop of laptops can hold its own against all but the most powerful desktop machines. These incentives have given the computer industry the kick in the pants that it needed.

Several recent developments have been of tremendous importance in the metamorphosis of the laptop from little more than a portable electric typewriter to a powerful machine:

Legitimization of the 3.5" drive by IBM: Until the PS/2s arrived on the scene, there was still uncertainty about the validity of the 3.5" disk in the MS-DOS world. Even now, most laptops still use the 720K disk rather than the 1.44 meg variety.

New screen technology: if you can't read it, it's useless. This may seem basic, but no one bothered to tell Data General, Kaypro, or a host of other early laptop manufacturers. (Common sense has not been a hallmark of laptop development.) In fact, Apple is still sitting on the portable Mac, waiting for the perfect screen to drop from heaven. The old LCD screens were almost impossible to read unless the letters were huge, as on the Model 100, which made a full 24 lines by 80 column display impossible. The next improvement was the supertwist LCD screen. We now have backlit supertwist (generally blue, more recently "paper white") and orange/red gas plasma screens. Both are very readable in a variety of lighting situations. On the downside, they drain power. We're just beginning to see monochrome displays with VGA resolution (640x480) and some of the transportable clones have color monitors. Many laptops can be connected to external monitors. The next development will be the laptop color screen.

Fast, cheap, low-power hard disks have made it possible to pack desktop power into a laptop. Until very recently, the only half-height

hard disks around were 5.25" models that took too much space, weighed too much, drew too much power, and were slow. When Compaq came out with its 286 portable a few years back, its 20 meg hard disk had a random access time in excess of 80 ms. (The maximum acceptable access time for an AT hard disk is 40 ms.) Recently, many manufacturers have introduced 3.5" hard disks in the 28 ms. range that draw as little as 1 watt. Prairietek has pioneered a 2.5" hard disk and IBM has a small drive on the drawing board. An added benefit of the smaller drives is that the need for shock mounting diminishes.

Transferring Files From One Machine to Another

It's easy to transfer files from one machine to another at your desk. How you do it depends on the type of laptop you have, as well as the operating systems you are using. In most cases, you will need a **null modem**, a cable (or a plug that fits on your regular serial cable) that lets you connect the serial ports of both machines.

Model 100

Disk 169 in the BOSKUG library tells you how to make a null modem cable to connect your CP/M Kaypro machine and your Model 100 laptop. It also includes a program called FT.COM that runs on the Kaypro and lets you send and receive files. Mike Bartell wrote the doc file that leads you step by step through the procedure at both the Kaypro and Model 100 ends. He also tells you how to deal with the problem of unwanted carriage returns.

MS-DOS

If you are transferring files between MS-DOS machines, you have several options:

1. You can install a 3.5" drive in your desktop machine, or purchase an external 5.25" drive for your laptop.

2. The neatest solution is to use file transfer software such as LapLink or Brooklyn Bridge. (A public domain program called ZIP 1.22 written by Eric Meyer is available on the BOSKUG bbs.) Working with a null modem (included in some of the packages), these programs let you treat one machine as the host computer, the other as the remote computer, and transfer files at blinding speeds between them. You can also use these programs to transfer files between a desktop machine with a 5.25" drive and a PS/2 with a 3.5" drive.

Choosing a Laptop

Many of the questions you should ask are the same as for buying any computer. Others are more specific.

1. What will I use it for? If the machine will be used for taking notes, your needs are quite different than if you must run AUTOCAD or Microsoft Windows.

Do I need an AT or can I use an XT-class machine?

Will this be my primary or secondary machine? If it's a primary machine, you may want a better display and more storage.

Do I need a DOS machine at all? Or can I use a Model 100 or Epson Geneva? If all you're doing is dumping short text files, the smaller, less expensive machine may be all you need.

2. How portable must the computer be? Will I be carrying it a great deal? Or do I just want a machine I can close up and put in the closet when I need more desk space? You may be able to get along with a portable rather than a battery-operated laptop.

If you need a lightweight DOS machine, there are only two options: the low-priced Toshiba T1000 (6.4 lbs.) and the high-priced NEC Ultra-Lite, which is two lbs. less. More are on the way.

3. Do I need battery operation? The transportables are not battery operated, nor are some of the larger laptops.

4. Do I need a hard disk? Many people think that hard disks have no place in laptops. But those who need to run desktop applications (databases, spreadsheets) for client demos will need hard disks. Manufacturers charge top dollar for these hard disks; on the whole, you can't get a stripped machine and install your own.

5. How much can I spend? Any laptop will be more expensive than the comparable desktop machine. In most cases, given two laptops with equivalent features, the lighter of the two will cost more. Used machines tend to have poorer displays or slower hard disks.

6. Do I need a super-readable screen? Will I be using an external monitor? One reason I haven't yet bought a laptop is that I want to be able to see both boldface and underlining in WordPerfect, and this isn't possible with most displays that emulate cga.

7. Can I live with the keyboard that comes with the machine? If not, does it have a standard plug that I can use for the keyboard of my choice? How important are these factors? Obviously, if you use the laptop for writing eight hours a day, it will be more important than if you use the machine only to read your electronic mail. Only the NEC Multispeed has function

keys on the left, an important factor when working with WordPerfect. Compaqs have traditionally come with short cords hard-wired into the machine, just to make life difficult. On the other hand, the lunchbox clones all seem to come with a standard keyboard plug, as do many laptops.

8. Do I want to be able to use standard expansion cards? If so, you will probably have to forget about battery operation and go with a portable.

Other Items You May Need

Is your bank account safe once you've purchased the laptop and any applications and file transfer software you need? Hardly.

Your first problem will occur the moment you turn on the machine. Depending on your location, the screen that looked so beautifully readable at the computer store may now be something less than ideal. Chances are you'll spend a few frantic hours experimenting with lighting before learning how to position the laptop for the best display. Particularly if you have a wide and narrow screen, you may still have trouble locating the cursor. Of the machines I know, only the Datavue Spark lets you change the cursor from blinking underline to a blinking box with a keystroke combination. There are, however, software solutions.

If you happen to have WordPerfect 4.2 or 5.0, it includes a useful utility called **cursor.com** that lets you customize the cursor position and shape. It may or may not work with other applications. You can also purchase Ken Skier's No-Squint program from SkiSoft.

You may also decide that your laptop's blinks and beeps aren't quite assertive enough about telling you the condition of the battery. Another clever program, Battery Watch, from Traveling Software, uses a fuel gauge metaphor to tell you how much life is left in your batteries.

The other problems that arise are more expensive to solve, and how important they are hinges on how mobile you want your new laptop to be and your sense of esthetics. Do you want to carry around a printer that is ten times as large as the computer, or a modem that weighs almost as much as the laptop? For those who must take these peripherals along, Diconix has developed a line of nifty little battery-operated inkjet printers. Internal modems for most laptops are outrageously expensive (which may be another reason to purchase a portable that can use standard expansion cards). You can, however, get a "pocket modem," a battery operated Hayes-compatible modem the size of a pack of cigarettes. Most of these are 1200 baud. Migent, which pioneered pocket modems, is in grave financial difficulty right now; their model was selling for $65 at the last flea market I attended. The Touchbase Worldsport modem is available in a 2400 baud model. Several other modem manufacturers have recently added pocket modems to their lines.

What the Future Holds

It's probable that more and more manufacturers will adopt the type of RAM expansion card offered by the Toshiba T1000; the NEC UltraLite already has. The additional RAM is non-volatile (doesn't go pfft! when you turn off the machine) and can be set up to work like a very fast hard disk of limited capacity. The UltraLite also has gone back to the old ROM cartridge concept; instead of a cartridge, NEC is offering applications on ROM cards the size of credit cards. Compaq has just entered the laptop field, IBM is poised to re-enter it, Zenith supposedly has a machine in the wings to compete with the NEC UltraLite, using more conventional technology. Hard disks are about to shrink in size again, and assorted manufacturers are working on floppy drives and credit card memory devices with increased capacity.

So if you don't need a laptop desperately, wait. The best is yet to come.

Karen Rockow is still waiting for the perfect laptop. She used her Model 100 only once, to log onto computer bulletin boards from the hospital, and recommends it highly for this purpose.

Classified Advert

Wanted

MS-DOS compatible personal computer. We need a 640K machine with the following features:

- 20-30 meg hard disk
- one or two floppy drives
- amber high resolution monitor
- one parallel and one serial port.

We also need a NLQ dot matrix printer. Please call Father Joachim Lally at

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or write to Holy Cross Cathedral, 75 Union Park St., Boston, MA 02118

On Board CP/M

by Hal Vogel

Through the WordStar Printer Patch Without Really Patching

Life would be much simpler if we didn't have to patch printer drivers. But do it we must if only to prevent our computer screens from becoming the modern equivalent of clay tablets.

However, printer patching for WordStar version 4, can make you seriously reconsider clay as your media. Depending upon what you're trying to make your printer do, and MicroPro's printer driver, the process can be simple or daunting.

Installing a printer driver is not much of a problem – WINSTALL and WSCHANGE take care of that. If the basic driver for your printer is adequate, you're in business. But if you have adventurous tastes or you want to use your printer as more than a typewriter, you'll probably have to do some fine tuning to the MicroPro-supplied printer driver. The process isn't as complex and frustrating as it used to be. You find the appropriate command codes in your printer manual, convert them to hex (if the manual hasn't already done so) and enter them in WS4 via WSCHANGE. Find that pertinent slot in one of the printer data menus and enter the code.

This is much easier than it was in the Dark Ages of WS tinkering, when pioneer patchers sometimes first had to unearth program addresses, figure out how the code should be entered and then manually plug in the values using a program patcher. Some codes needed to begin with "count bytes" that told WS how many characters going to be entered at that address). WSCHANGE takes care of even this.

Alternatives to patching WS4

But if permanently patching WordStar isn't for you, there are other ways for directing WS4 to access those specialty features of your printer and they're even easier. Not only do they provide an alternative to those who don't want to patch WS4, but they also allow masochists (who still patch the old fashion way) to make changes on-the-fly. The methods we'll discuss use dot commands, WS4's **^P** command, and sending escape codes directly to the printer.

In most cases, you won't have to do any internal program patching – however, there is no way of getting around knowing what codes your printer needs to perform certain functions you wish to access. These can be found in your printer manual. If you don't like entering hex code, there are choices that accept the commands in (nearly) plain English.

Method #1

This method is right out of the manual. You use a dot command to enter the same code you would patch under WSCHANGE. Instead of permanently writing it into WS4 (or its printer overlay), simply type it as a dot command anywhere in your text before that portion where it has to be used. Make sure the dot command begins in column #1 of its own line.

What you are doing is temporarily patching up to four of the **user definable** printer command strings. They are **^PE**, **^PQ**, **^PR**, and **^PW**. If they haven't already been patched, they might print something if entered in your document, maybe one of the extra characters or symbols. Chances are, however, that they won't produce anything until you give them something to read.

This method first tells WS4 in your document (in HEX code) what you want the commands to do with your printer. Then, in the document, you'll be showing WS4 exactly where (and for how long) you want it done.

Let's say you want a more exciting type of emphasis printing. Regular three-strike boldface doesn't quite achieve the effect you want under certain circumstances. JUKI 6100 (one of the printers that sometimes also wore a Kaypro label when bundled with some '84 series Kaypros) has a SHADOW printing feature that does a slight offset as it restamps each character three times. This produces a more dramatic boldface. Other printers also can achieve this effect. JUKI 6100 turns it on with an **ESC W**. **ESC &** turns it off. The HEX code for ESC W is 1B 57. ESC & in hex is 1B 26.

So at the top of your document (or before you want to use SHADOW printing) type the following dot commands:

```
.XE 1B 57
.XR 1B 26
```

Of course, these would be flush left, with the DOT (period) of the dot command being in column one of that line. Nothing else may be on a line with these dot commands. These tell WS4 that when it encounters **^PE**, it should direct the printer to do whatever ESC W means to it (SHADOW printing). The second dot command tells it to convey an ESC & to the printer when it encounters a **^PR** in this document. If we had used XQ or XW, we would have been

giving meaning to ^PQ and ^PW in this document.

But only in this document. These dot commands will cause (in this case) ^PE and ^PR to react the same as if we had patched the program with this code via WSCHANGE or DDT, etc. However, this patch only works in the current document. The dot commands expire when you enter another document. Save and reenter this document, and the patches again are in effect. Use them in the text as if they had been permanently patched into the program. This is how you would type it to turn SHADOW printing on and off for emphasis of "not" in the following example:

Type

```
This is ^PEnot^PR the way to do it!
```

It would appear like this on the screen:

```
This is ^Enot^R the way to do it!
```

These can be cancelled and changed before you leave this document. You simply have to begin another line with another dot command that redefines ^PE and ^PR. Now all that follows in this document will have their *new* meaning. This will be true even if ^PE and ^PR already have been patched in the program. Any such dot commands will temporarily override whatever already is hard patched.

There is another difference between patching printer commands this way and permanently patching them into the program. The dot commands are entered without a count byte. Just enter the COMMAND (e.g., 1B 57). It would have been entered as **02 1B 57**, if it were a permanent program patch.

Method #2

Method #2 has two variants. The first of the two varieties employs a modification of method #1. It uses a very useful permanent or semi-permanently patched (or designated) user definable command string. Choose one of the four empty user strings (^PE, ^PR, ^PW, ^PQ) and via WSCHANGE or DDT, etc., patch it to produce the ESCape command (1B). Of course, you will have to use a count byte. The full patch will read **01 1B**.

Now you can easily insert two-byte printer ESCape codes *directly* into your text without even having to declare them in a dot command. It is one of the neat (undocumented) features that WS even had in earlier editions. Remember, ESC (with this method) already is patched in the program (let's say as ^PE) to be produced from one of the four user definable strings. You simply are adding the next ACSII character of a printer escape code (NOT a hex code, in this case) to produce the desired effect.

To enter our SHADOW printing example again (emphasizing the word "not"), type

```
This is ^EWnot^E& the way to do it!
```

^PE would appear on your screen as simply ^E (^PR would appear as ^R, etc.). Patched as ESC, it tells WS that the next ASCII character (notice, there are *no* spaces between the ^PE, W and the affected text) should be considered as part of a printer command and not as a printable character in the text. Of course, ^PE (patched to mean ESC) with & following is the command to turn off SHADOW printing.

You can use this anywhere in any WS documents to produce the effect of two-character ESCape codes (i.e., where the first character/byte is ESC). Notice again that we used regular ASCII characters following ^PE (ESC) rather than translating them into hex code.

Method 2a

A variant of method #2 (call it #2a), does not require ESCape to be patched into the program. Remember, this also can be taken care of *within* the document using a dot command. Of course, it isn't permanent and must be entered in each document that will need it.

In this case, use a dot command that defines the ESC key (we still are using ^PE) at the top or anywhere preceding where it will be used as **.XE 1B** (*NO* count byte, of course). You'll recognize this as the method #1 technique.

Now wherever you follow ^PE with a character that means something to the printer, it will produce that effect when it prints out that document. Remember, no spaces separate the control string, additional print command (in ASCII) and the text they affect.

Method #2a on the screen would look the same as what we had for method 2. The only difference is that WS is getting the meaning of ^PE from wherever you put the dot command and not from a patch inside the program.

Method #3

Method #3 reuses a feature of WS that we already use for printer effects. It's the ^P of WS that tells the program that the next ASCII character is part of a printer command and not a printable character (e.g., ^PB for boldface and ^PS for underlining). We will precede printer escape codes (in ASCII characters) with a ^P, leaving no spaces between the code and text, just as we did when employing a patched ESC key for this same purpose.

Of course, be careful that your ^P command does not duplicate an existing ^P command al-

ready recognized by WS. If it does, WS will yield the effect it already recognizes and disregard yours. So our continuing example would be typed in the text as:

```
This is ^PWnot^P& the way to do it!
```

Typing CONTROL-P, followed by typing the ESCape key (don't type "ESC." Type the KEY that is identified with the lettering "ESC") and the last part of the ASCII code identifier would appear like this on the screen:

```
This is ^[Wnot^[& the way to do it!
```

The screen display won't show the **^P**. ESCape will appear first in the command as **^[**. Of course, the **W** is the end of the command (ESC W) that produces SHADOW printing on our JUKI 6100. The command ending with the ampersand, of course, turns it off.

Type **^P** using the CONTROL key and the letter **P**. Enter **ESC**ape by typing the ESCape key in the upper left portion of the keyboard (don't type the control key and a left bracket {[}, even though that is what appears on the screen). And don't forget, no spaces between the commands and the text they influence.

Method #3 is not permanent. Its commands expire when you turn them off in the document and they won't transfer to another document unless you write them into this other text file. But once this file is saved, they are PERMANENT in that document -- just as if they had been patched into the program.

Methods vs Methods

Why would anyone resort to method #2, if deciding between it and method #3? Method #3 is simpler and has a familiar usage. Unfortunately, WS already has monopolized many of the **^P** pairs. So this limits what we can do with method #3. Method #2 gives us much more utility.

Here we have three alternative methods for accessing more of your printer's features without having to fully patch the WS program. And even if you do patch the program for the features you wish to access, these methods are handy for altering any of your existing patches (or tasking other unpatched printer capabilities) on-the-fly.

WordStar3.3 Redux

Several readers have noticed mention in this column to the golden era of WORDSTAR patching. They remind us that not everyone today benefited then from a patched copy of WS3.3. Some came to CP/M after the heyday of 3.3's reincarnation. There also are others who just may have missed all this 3.3 refinishing when it was going on or who were apprehensive about climbing into Wordstar to splice its genes.

There are several text files on electronic boards that contain most of the known WS3.3 memory addresses for patching. Some even explain how their values may be adjusted. However, this wouldn't help those who want the operation, but don't want to be the surgeon.

Hopefully, WS33PAT.LBR (now on the BOSKUG files board) will resolve both these needs. It contains three files that have many of the classic WS3.3 patches for greatly enhancing this program's capability and ease of operation. These are SUBMIT files that (following the instructions in their .doc files) can be made to *automatically* patch the necessary program files (WS.COM and its overlay files).

WSPATCH.SUB is the basic patching file. It enables auto-logging to drive B: on startup, fetching WORD+ on B: and having it called from within the WS program, skipping over the opening menu and advertisement to speed startup, extended tabs, improved screen performance - and a host of other features. WSMAJ.SUB goes a bit further to adjust some settings for 12-pitch printing. It also provides an ability for improved (modified) proportional spacing output from the standard 12-pitch printwheel.

The last file (WSPP.SUB) assumes use of a Roman PS printwheel for proportional spacing output. It further modifies parts of the program to permit better effects when attempting proportional spacing via WS3.3.

Any of the .SUB files can be entered in the NON-document mode of Wordstar for examination and modification. Type **N** instead of **D** when naming the file to enter (of course, you also can enter these via the document mode -- if you wish to corrupt them).

Place a semi-colon (;) in front of any code you don't want to modify your program. EX14a.COM (included in the library file) will disregard those lines. If your printer doesn't use the Diablo command set, substitute your printer's code for the ones I have placed in the user-definable locations. Change these also, if you want the user-definable triggers to command something other than what I have indicated.

The various documentation (.DOC) files explain what will result after running each SUBMIT file. Reading the pertinent .SUB file will further show how this is to be done within the program. Remember not to enter any .SUB files in the document mode of WORDSTAR.

If you just want to run the basic patching program without any changes, you'll need three

files from WS33PAT.LBR, one from your CP/M disk (DDT.COM) and the contents of your WS3.3 master disk. Extract WSPATCH.SUB, WSFAST16.HEX and EX14a.COM from WS33PAT.LBR (using DELBR11.COM, LU.COM or NULU.COM). With this disk in drive A:, go to your CP/M master disk and copy its DDT.COM from drive B: to your disk in drive A:. Finally, after removing the CP/M program disk, place a working copy of the WS3.3 master disk in drive B:.

Now with the patching programs and files in drive A: and your WORDSTAR 3.3 files in B:, log onto A: and type:

```
EX14 WSPATCH <CR>
```

There is no need to tell it what programs to patch or where they are. The submit file takes care of all that.

You'll see the operation stream by on the screen. Don't do anything else until it is finished. There will be a message when it's done. It also will stop doing what it just was doing. At that point type a control-C (^C). You're programs now are patched. Enjoy them.

Two further remarks: These SUBMIT files are not designed for running under the DOS-convention version of DDTZ (DDTZM). Of course, they can run under DDTZM, but must be modified first to account for its differences. And, of course, these patches apply ONLY to WS3.3. Those instructions that also would function under WS3.0 would need adjustment of their memory addresses for proper insertion in that program.

Boskug's New Audio Tape Service

GO To Meetings - Even If You're Too Far Gone

If you are unable to attend Boskug's monthly meetings, you can still benefit from the CP/M presentations. Since Jay Sage has been recording them, you can experience the CP/M portions of the meetings in living audio. It has not been without personal sacrifice. Last month it cost him his tape recorder. Undaunted, he got another cassette player and is back in business with this past month's CP/M presentation.

If you would like to listen to the tapes of the meetings, partake of breathtakingly technical tricks and tips, become bedazzled by dashing repartee, try borrowing a meeting tape from the Boskug Audio Tape Library. The rules are simple.

1. Send a self-addressed, adequately pre-stamped mailer sufficient to accept the safe return of a normal cassette audio tape, to:

   Hal Vogel
   Box 456
   Rancocas, NJ 08073

Ensure that appropriate packing material accompanies each self-addressed mailer.

2. You will be sent the copy of the tape made at the meeting's CP/M presentation by Jay (or the joint CP/M/MSDOS presentation, when there is one). It may be retained for no more than THREE days after receipt, after which it MUST be returned to the above address. PLEASE remember to rewind the tape after having listened to it.

3. Each requester will be sent the same tape, so it is essential that recipients abide by the time constraints. Don't request the tape if you plan to keep it for more than three days. It won't expire. Ask for it when you have the time to meet the turn-around period's conditions.

4. You may make a copy for your listening purposes of the tape you receive. However, it may not be further copied or distributed without permission of the tape librarian (Hal Vogel). This is to protect the rights of the presenters and BOSKUG's right of membership.

What about getting copies to have and to hold?

In order for us to send out copies of meeting tapes that you can keep, we need someone to do the duplication work. If someone out there with access to a high-speed cassette audio tape reproduction facility is willing to help out, please let us know. The way we envision it, we provide copies of the meeting tapes for a reasonable period of time after each meeting's presentation. Members who want tapes would send us a blank tape along with return postage. We would put a copy of the meeting on the tape and send it back. One copy of the tape would be kept in the library for lending and archival purposes.

Do we have a volunteer who could make multiple copies? How about a volunteer who could make a single copy of the master tape? After all, we don't want to send out the master tape and my facilities for copying tapes are pretty limited.

I look forward to hearing comments about this service and especially to hearing from anyone who might be able to help with the copying.

Memory Wars

A Long Time Ago in a Processor Far Far Away

by Michael Spampinato

Even though expanded and extended memory have been with us for a few years, the differences between extended, expanded, and enhanced expanded memory continue to create confusion.

Extended Memory Extended memory is only available on 80286/80386 systems. The 8088, 8086, and 80186 chips do not recognize extended memory, because extended memory is a function of the 80286/386 processors. In "native mode" these chips act like a high-speed 8088, running standard DOS applications at speeds an average of 3 - 15 times faster than an 8088. RAM is still limited to 640K. In "protected mode" these chips are capable of multi-tasking and recognizing multi-megabytes of RAM. An operating system like OS/2 that addresses the protected mode of the 286/386 family is required to break the 640K DOS barrier. If you have 8 megs of extended memory under a protected mode operating system, your computer will have 8 megs of directly addressable RAM. Standard DOS applications, however, will not run on such an operating system. OS/2 has provided a "DOS compatibility window" in which a single DOS application can be run under 640K of RAM.

Under DOS, extended memory is usually used for a RAM disk with a device driver similar to the VDISK.SYS that comes with DOS. A few disk cache and print spooling programs also can utilize extended memory, but most only recognize expanded memory. Because extended memory has much less versatility than expanded memory, software is being released that converts extended memory to expanded memory.

Extended memory begins at 1mb and goes up from there. Because of this, you have to be careful when selecting a 286/386 motherboard. Some motherboard designs containing 1mb of memory allow you to configure that 1mb as either 512K conventional and 512K extended, or 640K conventional and 0K extended. The remaining 384K is wasted. Other designs let you divide the same 1mb of RAM as 640K conventional memory and 384K extended memory.

Expanded Memory

Expanded memory was developed to break the 640K barrier of DOS. The 8088, 286, and 386 chips can address a maximum of 1mb of RAM directly when running under DOS. This 1mb is broken down as follows:

- 256K for ROM BIOS, extended video modes such as EGA, and (on PC/XT only) Hard Disk 128K for Video memory
- 128K for video memory.
- 640K for Conventional RAM

Bank Switching

Expanded memory utilizes a technique called "bank switching." Bank switching allows a chip to access more memory than ordinarily possible by storing chunks of information in sections ("banks") of the extra memory. As necessary, unneeded data is "switched out" of conventional memory and needed data held in the extra memory is "switched in" to conventional memory, where it is manipulated as usual. Bank switching was used by CP/M, Apple II and other systems long before the IBM-PC made its appearance.

LIM Expanded Memory

Engineers at Lotus, Intel, and Microsoft collaborated to develop a bank switching system for the IBM-PC. They called this system "expanded memory". Known as EMS (for Expanded Memory Specification) or LIM (Lotus, Intel, Microsoft), this expanded memory first allowed the PC to exceed 640K of RAM. LIM expanded memory is switched into conventional memory by a window consisting of four 16K segments. Because of the limitations of a 64K window, programs could not run in expanded memory, but data could be stored there. A spreadsheet like Lotus 1-2-3 could create huge spreadsheets by storing much of it's data in expanded memory. Databases and word processors also began taking advantage of expanded memory to allow larger documents or databases to be held in memory, allowing faster data access and manipulation. The LIM specification could recognize up to 8mb of expanded memory.

Enhanced Expanded Memory

Enhanced Expanded Memory Specification (EEMS), developed by Quadram/AST/Ashton-Tate, increased the size of the switching window so programs could actually run in the expanded memory. This potential for multi-tasking was, for a long while, only utilized by one program (Desqview by Quarterdeck) EEMS could address up to 16mb of expanded memory.

LIM 4.0

The new expanded memory specification, LIM 4.0, was the result of a joint effort by both the EMS and EEMS developers. LIM 4.0 al-

lows programs to run in the expanded memory, like EEMS. Programs like Desqview and MS-Windows will recognize LIM 4.0 and allow multi-tasking.

LIM 4.0 allows enhancements beyond EEMS. DMA support allows multi-tasking programs to be switched in and out of activity before DMA communications are completed. The LIM 4.0 memory will continue to handle DMA communications when a program has been switched to the background in a multi-tasking session. Further, integrated software packages can be written to share the same data set, allowing faster handling of data and more efficient use of available memory.

Hardware

Most board manufacturers such as AST, Quadram, Intel, STB, Boca Research, ADI etc. manufacture expanded memory boards. These boards usually provide 1.5-2mb of memory. Many can use either 64K or 256K chips (not mixed). Keep in mind that a fully populated 2mb expanded memory board will only yield 512K when 64K chips are used. If you want to go beyond the 2mb of expanded memory these boards usually provide, several boards may be installed in one computer. However, multiple boards should be of the same make.

Boards designed for pre-4.0 specifications can use 4.0 software but will not allow multi-tasking. The techniques required to allow programs to run in expanded memory are hardware rather than software dependent. For example, an original Intel Aboveboard running with LIM 4.0 will not be recognized by Desqview. However, an EEMS board under LIM 4.0 will have full 4.0 capabilities.

Expanded Memory Management Software

In order for the computer to recognize and use expanded memory, a software driver is required. This driver is placed in the CONFIG.SYS file. For example:

```
DEVICE=EMS.SYS
```

Different manufacturers always provide their own memory management software with the expanded memory board.

Special LIM 4.0 Programs

Some programs are emerging that actually run in Expanded memory. This is an ideal environment for TSR programs. TSR (Terminate and Stay Resident) programs, commonly known as memory-resident programs, are loaded into the computer's conventional RAM. Hitting a series of keys will pop this program up over whatever program you're currently using. Borland's Sidekick is considered by many to be the the program responsible for popularizing TSRs. Unfortunately, Sidekick can take up almost 100K of RAM when all of its modules are loaded. If you use Sidekick with other TSR programs, you can easily lose over half of your available memory before ever loading a standard application. A new version, Sidekick Plus, is designed to place most of itself into 4.0 expanded memory, leaving a small "kernal" in conventional memory through which the main program is accessed. More important are TSR managers. The principle is simple. Determine how much memory your largest TSR requires and set that much conventional memory aside. The TSR manager program will place all of your TSRs into 4.0 expanded memory. When you call up a TSR, it runs in the conventional memory you've set aside. Hence, you could easily have 1mb of TSR programs residing in expanded memory with only a 60 or 70K window reserved from conventional memory (plus a few K for the TSR manager).

Coming Next issue

A look at the GEM operating environment, Gem graphics packages, GoScript (a program that prodcues PostScript on non-PostScript printers, and the HP Deskjet printer.

Classified Adverts

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If you are a Boston Computer Society member, or a Boskug member, you get to run your classified advertisements for free. Results are not guaranteed, but what the heck.

If you have something of value for which you are seeking a new home, or are merely trying to eke out the last few bucks from your once-upon-a-time-but-no-longer state of the art machines, send your ad copy to:

John Goldie, editor
158 Hollett Street
Scituate, MA 02066

Greetings from the Highlands of Scotland

By Colin Walker

My name is Colin Walker and I have recently become the proud owner of a Kaypro 2 computer. This machine has, what may be to you, quite an interesting history and if you have the time I'll tell you what I can.

This unit found its self travelling to North Africa in the company of two missionary teachers, whom I believe used it to translate bible passages into several different dialects for the natives. It was then bought by another teacher and brought to the U.K. where it served for several years, mostly again as a wordprocessor. Then it got sick.

The owner took it to several computer dealers but having never seen a Kaypro they shook their heads and told him all sorts of little stories like, "both your disk drive heads have gone, sir" or "it's probably your pio chip, American you know, can't get 'em over here, you see." During this period one of these people managed to sell him a Z2 Buzz Bomb Mk IV with 300 Megabyte SuperTurbo Disc Drive and Coffee Maker!

The Kaypro gathered dust.

One Friday night I received a phone call from a friend at Drumnadochit, home of the Loch Ness Monster. Saturday found myself, Jimmy the Gnome (he's another story on his own) and a school teacher who Jim had promised to take fishing, in a boat in the middle of Loch Ness. The teacher's name was Bill Frances and he had recently moved to Scotland after returning from North Africa (Things Start to Fit). Anyway, we had plenty of time to talk as the monster didn't turn up and neither did any fish.

I am, by trade, an electronics tech working on renal dialysis equipment in the local hospital and so when Bill proudly told me of his new Buzz Bomb etc. And I was mildly interested when he told me he was about to throw an 'old' one away my ears pricked up rather sharply. "Don't do that I said, give it to me and I'll strip it for parts.

So I now had the old computer with two damaged heads, one blown microprocessor, none of which I could get in this country. (This was rubbish of course.) I put it on the work bench and got ready to take it apart. I thought I'd just have a quick look at it.

Power on. OK

Drive A dead.

I changed over the drives.

Drive A running.

Disc in.

Bingo.

One Kaypro alive but still sick.

Twenty minutes checking the faulty drive turned up a failed power transistor on the motor drive board. Thirty minutes total time equals one very healthy Kaypro 2. So now I have a very good computer. I then contacted a friend in the USA to see if there were any groups like yourselves or any places where I may have been able to acquire software.

I have at the moment several pieces of Kaypro software but also some of it is damaged quite badly. Several utilities on the system disc are faulty. My Perfect Filer disc must have been in one of the missionaries' pocket when the natives started to eat him, as it appears to have teeth marks in it.

My friend Wally Andrews is now over here visiting other friends and he was good enough to contact yourselves and supply me with your info sheet. Now for the Nitty Gritty, as we say over here. Is it possible to obtain a list of software available for my Kaypro 2 with prices, postage, etc. especially for a Perfect Filer disc and a system disc? Finally is it possible for me to join your user group as I have been unable to uncover one here?

Something Kind Of Wonderful: PC-Kwik Super Pak

by Michael Bartell

PC-Kwik Power Pak lists for $129.95
Multisoft Corporation
15100 SW Koll Parkway
Suite L, Beaverton, OR 97006
800/288-KWIK (800/234-5945)

Multisoft's PC-Kwik Super Pak consists of a set of dynamic DOS enhancements including a disk accelerator/cache, a keyboard accelerator, a screen accelerator, a print spooler, and a RAM disk. The package is dynamic because the utilities are linked to the disk cache for optimum performance of operational speed, conventional memory size usage, and flexible set-up parameters.

Background to DOS enhancement utilities

There is a variety of commercial, public domain, and shareware software available for enhancing the performance of DOS computers. These resident programs load into the 640K of conventional RAM memory before the execution of application programs such as word processors and spreadsheets. Let's take a look at the different ways to enhance performance.

Disk accelerators/caches

Disk accelerators (or disk caches) enhance the performance of reading information from diskettes and hard drives. The cache stores copies of recently used disk sectors in random access memory (RAM), effectively reducing the number of times applications physically access the disk. By reducing the number of disk accesses, the application runs faster than it normally would because more of the application is now run from RAM rather than the physical disk.

Keyboard accelerators

Keyboard accelerators speed up the character per second (cps) rate at which the cursor moves around a word processing document or spreadsheet. The keyboard accelerator also increase the responsiveness of cursor keys by reducing the delay time between when a character is typed and when subsequent characters start repeating. In some keyboard accelerators these repeat functions can be set to accelerate gradually before reaching maximum speed.

Screen accelerators

Screen accelerators speed up the output of text to the video screen. They eliminate the flickering screen problems found in some monitors. Some screen accelerators include a scroll-back feature which allows for the review of information which has already scrolled off the screen.

Print spoolers

Print spoolers intercept data being sent to the printer and copy it to RAM memory or to the hard disk before sending it to the printer. When the data has been saved to memory or disk, the print spooler runs in the background, returning control to an application while the data is being printed.

RAM disks

RAM disks use available RAM memory in a computer to simulate a physical disk drive. Files residing in memory can be accessed much faster than those on a physical disk drive. The RAM disk, in effect, becomes an additional drive in the computer.

These utilities often take advantage of extended and expanded memory. If the motherboard of a DOS computer is populated by more than 640K of memory chips, the additional memory chips can be accessed as extended memory. If a memory board is added to one of the available slots in the computer's bus, it can often be addressed as expanded memory. Disk caches, print spoolers, and RAM disks should be run whenever possible in extended or expanded memory in order to leave as much of the 640K conventional memory available for the application program to run in. This is especially true for memory hungry applications such as desk top publishing.

MS-DOS and PC-DOS include generic programs to improve performance. Increasing the number of buffers available, for example, operates like a small disk cache. The generic "vdisk.sys" can be run to create a "virtual" RAM disk in expanded memory. A number of companies offer software products to accelerate screen writes, such as Mace's Vscreen, and to improve the performance of the keyboard, such as Cruise Control. When an expanded memory board is added, generic disk caches, RAM disks, and print spoolers are often provided by the manufacturer. AST includes the Super Pak software with its boards.

It is easy to get used to the programs one has at their disposal. It seems apparent that generic programs included with hardware should optimize the use of that hardware. This is not necessarily so. Problems can emerge: applica-

tions such as Ventura Publisher need more conventional memory to run in than is available when TSR (resident) DOS enhancements are loaded into this now precious memory allocation; graphics are not properly handled by the print spooler with programs like Harvard Graphics and PC-Paint, tying up the computer by forcing a return to dedicated printing from the application software itself. Fortunately new software packages emerge which solve difficulties such as these.

Multisoft's PC-Kwik Power Pak

PC-Kwik Power Pak is an exciting new software package available from Multisoft. The Power Pak consists of a disk accelerator/cache, a keyboard accelerator, a screen accelerator, a print spooler, and a RAM disk. At the center of Power Pak is Super PC-Kwik, the disk cache program, which can address from 64K to 16 megabytes of RAM memory. This impressive disk accelerator shares its cache memory buffer with the associated screen accelerator, print spooler, and RAM disk programs. This elegant feature enables associated programs to borrow memory from the cache as needed, and to return memory to the cache at other times.

Various parameters such as cache size and the placement of the cache into either conventional, extended, or expanded memory are easily set when loading Super PC-Kwik. For example,

```
D:SUPERPCK /A+ /S:1024 <cr>
```

loads Super PC-Kwik from the D: drive to expanded memory, and specifies a cache size of 1024K bytes. The program can be disabled or uninstalled by entering

```
D:SUPERPCK /D
```

or

```
D:SUPERPCK /U
```

respectively.

Parameters for the keyboard accelerator, screen accelerator, print spooler, and RAM disk can be set prior to installation in a manner similar to that of Super PC-Kwik. Due to the flexibility of these programs, they function flawlessly on a variety of computers which use different storage devices (disk drives, hard drives, and Bernoulli drives), different screen displays (Hercules, CGA, EGA, and VGA), and different types of memory (conventional, extended, and expanded.)

Another advantage of the programs' flexibility is their ability to be set up either to fully optimize speed settings or to significantly increase performance in a truncated form which saves more conventional memory for running applications. This flexibility is especially useful when running a memory hungry application such as a desk top publishing program. With PC-Kwik installed in a truncated form the application will quite probably fit into memory and operate at an accelerated speed.

The PC-Kwik programs and special parameters can be automatically loaded when booting the computer if they are included in the config.sys and autoexec.bat files. A public domain program named "Reconfig" is useful when running PC-Kwik with different applications. Reconfig allows for multiple config.sys and autoexec.bat files. Thus you can have PC-Kwik set-up in one manner for use with regular applications and another manner for use with specific applications such as desk top publishing.

One cautionary note, however: be sure to disable PC-Kwik before using Reconfig to reboot your computer to another configuration. If you do not do so, you may find that the autoexec.bat file does not load properly. To disable PC-Kwik I altered POWEROFF.BAT, a batch file included with PC-Kwik, so that it reads:

```
PCKSPL /D
PCKKEY /D
PCKSCRN /D
SUPERPCK /D
```

The **/D** parameter disables the utilities and allows Reconfig to operate properly.

While the PC-Kwik programs can be disabled at any time, they can only be removed if they are the last transient programs to be loaded into memory. However, if you use a TSR utility such as PopDrop or Respro to manage other TSRs it is likely you will want to load these transient programs after PC-Kwik. (Multisoft warns against removing PC-Kwik programs with anything but the uninstall **/U** command.) So again, if you are going to reboot to another system configuration, first disable the PC-Kwik programs with the **/D** option.

It is not always necessary to reboot the computer to reset certain PC-Kwik parameters. Current settings for the utilities can be reviewed with a **/P** command, help can be acquired with a **/?** command and then modified with other / commands. The print spooler and the screen scroll-back programs include pop-up menus triggered by hot keys. These hot keys can be reset to other key combinations if the default keys conflict with other TSR programs. (I did have to redefine the print spooler hot keys for them to work on my system.)

Installation and Support

If any of the special configurations mentioned above seem overly complex, have no fear.

PC-Kwik is a very simple program to install. The single 5 1/4" 360K program diskette (also available on 3 1/2" diskette) contains an automatic installation program. PC-Kwik also determines automatically which of several configuration modules should be accessed when the programs are installed. Three manuals are included with PC-Kwik Power Pak. They are well organized, clearly written, and include a thorough index. They are designed in a manner which novice users can follow simple examples while experienced users can scan advanced options.

Telephone support is quick and friendly. The support number is 503/644-5644. The Super PC-Kwik disk cache, which was awarded "Editors Choice" by *PC Magazine* in the February 14, 1989 issue (vol. 8, no. 3) can be purchased alone for $79.95. A reduced version of the program is part of the PC-Tools Deluxe disk utility package. The full Power Pak is now being shipped with all Toshiba portables, Mitsubishi 286 & 386 computers, and Dell Computers with the Enhanced DOS 4.0 package.

CP/M

PC-File 80 Version 9.1

Software review by Willie Lockeretz

KaftorWare Corporation
PO Box 1674
Chicago, IL 60690
$49.95

PC File 80, Version 9.1, was released in late 1987 as a commercially-distributed update of a CP/M database manager that was already well-known in several shareware versions for both CP/M and MS-DOS (the most recent of the latter being PC-File III, Release 4.0). Its data files are interchangeable with its MS-DOS counterpart, which may be of interest to those who need to switch data between the two systems. All you would need is a format-converting utility, such as Uniform or DosDisk.

If, however, your database use is confined to CP/M, then PC-File 80 must prove itself better than the two database programs bundled with CP/M Kaypros at one time or another: Perfect Filer and DataStar/ReportStar. Presumably, you either already have these, or can easily get them. In this review I will concentrate on how PC-File 80 stacks up against these tried-but-not-necessarily-true stalwarts, to help you decide whether the one that costs is worth more than the ones that came free.

The accompanying table shows the most important features to consider in choosing a database management program.

(A technical note on the table, for those of you who want to estimate PC-File 80's performance with your own databases. The data on timing and disk space are for a 1300 record mailing list with name, address, some status fields, and a 65 character comment line. Each record has 17 fields, with a maximum length of 232 characters total, and an average of 86 characters of actual data. Times are for a Kaypro 4-84, with disks in Advent TurboRom format.)

Of the three, PC-File 80 stands out in three respects. Its strongest point is that it is easiest to learn, and therefore the best for a beginner. It also is the most versatile in exchanging data with other programs. Third, it allows you to browse through many records at once, and offers the greatest flexibility in finding records when you only have incomplete information. For example, suppose you are trying to recall somewhat who might have called herself either Liz or Elizabeth.

Basic Features of Three CP/M Database Managers.

	PC-File 80	DataStar	Perfect Filer
Maximum field length	65	255	79
Maximum fields per record	40	245	70
Maximum record length	253	very large (depends on form layout)	1024 minus number of fields
Data entry form design	fixed: 2 columns	free; can use more than one screen	free; must fit onto one screen
Able to link data files?	No	Yes	No
Disk space to store sample data base (K	342	148	188
Time to retrieve record by 4 char. key (sec.)	26	3	3
Time to retrieve last rec. in file, looking for exact match on name field (sec.)	72	38	Not possible

(Table continues on next page)

PC-File 80 may be able to help you (if you have time on your hands -- see below), whereas if you relied on Perfect Filer or DataStar, forget it pal.

These conveniences are nice, but to capitalize on them you must be prepared to make some serious sacrifices. PC-File 80 is stingiest in how much data it allows you to store in each record. Second, it is by far the slowest of the three in retrieving records or in sorting the file before you write a report. Third, it does not permit you to generate personalized letters (except if you are willing to put each variable length field, such as a name, at the end of the line and allow lots of extra room for occasional long names, in the manner of junk mail circa 1965.) Creating free-form reports, such as invoices, is much more tedious with PC-File 80. Also, it is the most profligate of the three in its use of disk space, which could be a problem if you have a large database or are using single-sided disks. (Part of its poor showing in the table comes from the 65 character comment field; unlike the other two programs, PC-File 80 allocates the maximum space that could possibly needed for every field in every record, including the full 65 characters for the comment field, even though this field is empty most of the time. See my article in the June-July 1987 *Kugel* for a comparison of different database storage methods.) And even if you have adequate storage, its slowness in sorting and retrieving argues for using it only with relatively small databases. Finally, its data entry screen is highly restricted, so that unlike with Perfect Filer or DataStar, you cannot, for example, put in extra text as cues or reminders for the person entering the data.

In other comparisons, PC-File80 doesn't offer DataStar's ability to link more than one database through a common field, which can be very valuable for databases with complex structures. Its mathematical capability is more limited, and it doesn't allow you to check for duplicate records. Also, you must sort the data again (a slow process!) if you have added or deleted records since the last sort, whereas with DataStar this is necessary only if you decide to change the sort order. One advantage not shown in the table is that it is much easier to redesign the database after data have been entered, a cumbersome process in DataStar unless you only want to change the length of a field or add a field at the end.

Compared to Perfect Filer, PC-Filer 80 is particularly advantageous for searching for records meeting a variety of criteria, a feature that PF totally lacks. Also, it offers reasonably powerful mathematical capabilities, compared to none for PF. However, it is much less convenient for generating several-across mailing labels, a task that PF does particularly easily.

In summary, none of these three programs is clearly preferable in all respects. PC-File 80 does have some appealing features, but if you already are conversant with either Perfect Filer or DataStar, you probably have little reason to spend any cash or to learn yet another program. This would certainly be true if the record size you plan to use exceeds the serious limits I've shown in the table, or if your database is so big that the time needed for sorting it or retrieving records will be more than you are willing to put up with. But if these constraints won't create problems for you, and if you are new to database managers and don't have the time or inclination to plunge into something more complicated, PC-File 80 could be a good way to start.

Willie Lockeretz is an ex-New Yorker who thinks that Dahchista sounds like Dahchista.

Basic Features of Three CP/M Database Managers.

	PC-File 80	DataStar	Perfect Filer
"Browse" mode to view multiple records at once	First 69 characters of 20 recs.	None	None
Check for unique value of key field?	No	Yes	No
Import/export data to/from other formats?	ASCIIcomma separated or fixed length; DIF	ASCII comma separated; fixed length ASCII output by writing report to disk	Public domain utility for exporting as fixed length ASCII
Arithmetic capabilities in reports	Column totals; computed fields	Highly flexible	None
Able to make formatted personalized letters?	No	Requires MailMerge/ WordStar	Yes
Ease/Convenience			
Getting started	Good	Poor	Fair/Good
Creating column format reports	Fair	Fair	Poor
Creating free-form reports or labels	Poor	Fair	Good

WS 5, the HP LaserJet II, and Printing an Envelope

by Yale Goldman

You own a fancy word-processor, an expensive printer, but you can still type an envelope with your old typewriter easier than you can with the fancy word-processor. But when you proof your work, the address on the letter and the address on the envelope do not quite match. Right? Perhaps. Here's a quick way of producing envelopes with a the Hewlett Packard LaserJet II using WordStar version 5.

I have a file, called **ENV**, in every word processing sub-directory that looks like this:

```
.pr or=l
.mt2.6"
.pl9.00"
.po1.8"
.rm80
Yale Goldman
10 Elinor Road
Newton, MA 02161-1833
.lm35



(8 lines or returns)



..address on next line (^end) - return at end of address
```

(file ends here because of the return at the end of the previous line)

After I have finished writing a letter, I block WRITE (**^KW**) the name and address I want on the envelope into its own file. If I were writing a letter to John Goldie, I would write the block

```
John Goldie
158 Hollett Street
Scituate, MA 02066
```

to the file **goldie.env**.

If a copy of the letter were being sent to Karen Rockow, I would also write her address to the file **rockow.env**. This system will work only if the block you wrote to file ended with a return (or if you added a return after the address in the new **.env** files).

I prepare the envelope files for printing by entering them in the "document" mode (FD **goldie.env**). With the cursor at the beginning of the file, I block READ (**^KR**) the **.env** file. With the cursor still at the beginning of the **goldie.env** file, I format the envelope file with a **^QU** and I am ready to print.

Before I print, I insert the narrow end of an envelope into the center of the manual feed slot of the printer - the flap to the left and underneath - and move the paper guides to the center so they gently embrace the envelope. Now I tell the program to prepare to print the **goldie.env** file (**^KPP**) and print (**F10**).

Voila, I have an envelope with the same address as is on the letter. And the DOS command **del *.env** removes all the envelope files from the sub-directory.

Classified Adverts

For Sale

Kaypro II computer; perfect condition. All software and manuals included. $175. Call Maryanne (617) 876-1737

For Sale

Microsoft Excel still in the blister for IBM/compatible computers. $275 or best offer. Call Michael (617) 986-7315 evenings.

For Sale

Kaypro New 2 Excellent, like-new condition. It is portable, perfect for writers, and cheaper than a typewriter. CP/M, 64K, two double-sided drives, graphics, software, manuals (Perfect Writer, dBase II, WordStar, games, and other), modem, and cables. $300. Star Gemini 10-X printer $95. Call (617) 484-3785.

For Sale

Kaypro 2. Two single-sided, double-density drives. WordStar and CP/M. $200 or best offer. Call Franklin Davis (617) 494-0079.

For Sale

Morrow Designs MD3 (64K, two floppy drives), with monochrome monitor. Excellent condition. Software included: CP/M 2.2, WordStar Professional, programming languages, data base, spreadsheet, and utilities, Computer table, cables, and dust covers, too $400. Gary Goldner (617) 327-9077.

For Sale

(Or if that's silly, for donation to a worthy cause.) One Osborne (gray) in good working order (last time I tried it), with 80-character board, all original software, Turbo Pascal, manuals. Also 300 baud acoustic coupler modem. Please take these classics out of a much neede closet. Call Barry (617) 332-5758 or write 124 Otis St., Newtonville, MA 02160.

The New BBS, continued from page 1

option is generally indicated in the prompt. To accept it, just press the return key.

You will next see a welcome message followed by a login request, asking for your first name, then last name, and then password. You can speed up the process by entering all the commands on a single line separated by spaces or semicolons. As a new user, you have no password on the system, so you should enter just your first and last names. Later, after you are a registered user, you can include your password as well on the same line. The system always accepts a group of related commands on the same line, but don't forget to separate them with spaces or semicolons.

Registering

Since you are a new user, the system will not find your name in its user file, and it will display the message, *<firstname> <lastname> not found in USER's file. (R) to re-enter your name or (C) to continue logon as a new user?* As a first-time caller, you should enter **C**, followed as usual by a carriage return.

You will now see a special message for new users that tells you about the registration process. BCS members get more privileges on the system (longer daily access and file download limits), so have your BCS membership number handy.

I won't take you through all the questions here; most are straightforward enough. You will be asked to supply a password and to enter it a second time for verification. For the city and state from which you are calling (or where you live), please use the format *CITY, ST*, where ST is the two-letter state code for the US. Include the country if calling from outside the US. Home and work numbers should be entered as ###-###-#### (with the area code). Finally, enter your BCS number or 0 if you are not a BCS member. That's it. Your registration information will be saved.

The news bulletin appears next. It generally provides information about our next group meeting. If you call more than once in the same day, you will only see this file on the first call.

The next prompt asks if you want to scan the message base for messages that were posted since your last call. As a new caller, you probably won't have any messages waiting for you, so type **N** and press the return key to skip this and save a little time. If you become a regular contributor to the message traffic, you will probably want to accept the default "yes" answer.

This is probably the time to note a few useful commands:

Ctrl-K or **Ctrl-X** cancel the current output

Ctrl-S suspends output until you press another key

You rarely need Ctrl-S because output is normally paged. At any *More* prompt, or when you issue the original command that generates the output, type the subcommand **NS** and press the return key for non-stop operation.

The system next displays your configuration information. The PCBoard BBS software that we are using can support numerous independent message areas. The first line in the status display indicates which areas you are registered for, while the second line shows which areas will be included in certain scans for all of your mail. We presently have seven active areas. The main area (designated variously by the number 0 or the letter "M") is the one you will be in initially on each call and the one most people will use most often. Other areas are:

(1) CPM
(2) DOS
(3) KAYPRO
(4) OSBORNE
(9) FOR_SALE
(10) ACTIVISTS.

All but the last are open to the general public, and, as you will see from the status display, you are automatically registered for all conferences through number 9. You can change this and other user information using the **W** (write) command from the main menu; it will take you through a process very much like the one for initial registration.

Finally, the main menu appears. At some point we may streamline this menu, but, at the time I am composing this article, the menu lists essentially all the available commands. I recommend that you capture this display and the help display discussed later and print a copy on your printer. Then you should enter the **X** (expert) command (even if you don't feel exactly like an expert yet) to turn off the automatic display of the whole menu, a time-consuming process that soon becomes an annoyance. You can type **X** again at any time to retore the menu.

Notice that the prompt offers you the choice of **H** or **?** for Help. By all means, take advantage of this feature. In fact, as I suggested above, you should capture the output on your printer and keep it nearby for ready reference. To avoid the *More* prompts and imbedded backspace characters, which really mess up a printout, enter the command as **H NS** or **H;NS** to get a non-stop help display.

As a new user, you really should just experiment with the commands. You cannot hurt the system (or, if you can, that is MY fault and MY problem, not yours, so don't worry about it). If things get hopelessly messed up, just hang up the phone and call back! However, before you take such drastic measures:

(1) try **Ctrl-X** or **Ctrl-K** if output is streaming by
(2) read the prompt carefully, if there is one
(3) enter the response **N** for "no" at a prompt for a function you want to halt.

The latter command is an important one to remember with PCBoard. Since no other BBS software that I know of uses N as the escape command, this PCBoard command causes trouble for many new callers.

One of the most common difficulties new users have is getting stuck at a subcommand prompt. Most often, this occurs while attempting to read messages. There are three command levels:

(1) the main menu command
(2) the message reading command
(3) the end-of-message command.

Each has its own set of responses; use the **H** or **H NS** commands for more information.

Briefly, the message reading command prompt allows you to specify a message number to read, a direction to scan, or a thread of message replies to follow forward or backward. In addition, you can locate messages you have sent or that are addressed to you, and so on. The end-of-message prompt allows you to reply to the message you just read or to perform some other more advanced editing functions. Many of the options under the three menu levels are the same, but some are different; this can be confusing for a while. To get back to the main menu prompt may require entering N twice.

Open Sesame

Before I bring this installment to a close, I'd like to talk a bit about DOORs, a very powerful way of extending the capabilities of the basic PCBoard system. Essentially, DOORs are external programs that run and then return to PCBoard. Type **DOOR** or **OPEN** and press the return key to display a menu of available doors. The reason I want to bring up this seemingly advanced subject right at the beginning is that you will want to begin to use the ProDoor door very early.

ProDoor is an advanced version of PCBoard. Oddly enough, the advanced features of ProDoor make it much EASIER to use than PCBoard itself. It uses some "artificial intelligence" to supply as a default the command you are most likely to want next. For those with MS-DOS computers or

telecommunications programs that allow VT100 emulation (or, of course, with an actual VT100 terminal!) you can enter messages using a full-screen,

WordStar-like editor. This is by far the nicest message-entry system I have ever seen on a BBS. You can even use Ctrl-B to reformat the paragraphs in a message! As with PCBoard, when in ProDoor you should capture and print the help information.

Next time, I will present some more detailed information about the board's operation, probably covering file transfer procedures. In the meantime, I hope you will call up and have fun. If you have any questions, please do not hesitate to post them in a message. But please do not address general questions to the sysop; by using the default "ALL" addressee, all other users, and not just the sysop, can help supply the answers.

Director's Letter, continued from page 1

the issue (using Ventura, a powerful but also complex and quirky program), then prints it out on a (borrowed) laser printer, all virtually unaided. This first final version must then be proof-read, cleaned up and adjusted before it is finally delivered to the BCS for forwarding to the printer and, thence, to the post office for mailing.

John gets some help along the way from various people (especially in the editing process), but it is he who does more than 90% of the work. In addition to everything else, he also solicits the ads and makes sure that they're in on time and that the copy is correct.

All this is do-able when things are going smoothly in an editor's life. But cumulatively it represents a large sacrifice of time taken away from income-producing work, and from family life. So when things are going a bit rockily, the newsletter slides easily to the bottom of the priorities list. And, when this happens, it's natural for the editor to become more crazy than normal; of course, this only results in more delay.

Our excellent newsletter is probably the single most important product that this userg roup produces. It is an essential communicatins link among all our members, number one, which means that whenever an issues is long delayed, the link is broken. Second, the *Kugel* is really the only tangible benefit of BCS membership for hundreds of Boskug members who live too far away from Boston to attend our or other BCS

meetings. And, for our many members who use CP/M computers, it is an essential lifeline -- often the only one -- of support. For them, the *Kugel's* absence is not merely an inconvenience, it is a deprivation.

What is to be done? We need help from our members. The greatest present need is for someone to solicit ads from manufacturers of software, hardware and peripherals. We do not get enough financial support from the BCS to pay for the expense of publishing the *Kugel*. In order to break even, we need at least 2 pages of ads per issue. The task is not a difficult one. It can be done by one person living anywhere in the U.S. We can furnish him or her lists of potential advertisers, and with ideas. We think there are many likely advertisers because the *Kugel* is one of the few remaining ways by which peripheral and software manufacturers can reach the CP/M market. (We have several hundred CP/M users.) All we need is somebody wlling to take on the responsibility for a year. It means sending out some letters along with sample copies, then making a few phone calls.

Interested? Here's a way you can contribute to a group whose services you value. Give me a call at 617-965-6343, or drop me a note (27 Howland Rd., W. Newton, MA 02165).

Further help needed: Someone in Boston area or on the South Shore (where John lives) who can help with production. Familiarity with Ventura on an IBM is essential. Ideally, he or she should also have access to a laser printer hooked up to an IBM with a hard disk for printing it out. Anyone with this ability should call me or John Goldie (617-545-0731).

Meanwhile, we pledge to do our best to get the *Kugel* back on track, even if it means smaller issues for a while.

"ZITEL"??? (What's in a name?)

BOSKUG IS IN URGENT NEED OF A NEW NAME. Why? Because the old one no longer describes who we are. As a result, many people who run DOS computers and join BCS, people who might well enjoy our group, fail to check us off because they don't know about us.

"BOSKUG" means "Boston Kaypro Users Group," but we aren't really Kaypro any more; moreover, most people associate the name with the old CP/M machines Kaypro originally made. What we need is a name that clearly embraces both operating systems and, preferably, one which also expresses the laid-back, informal character of our membership.

One member has suggested "ZITEL, the CP/MS-DOS Users Group." It's a made-up word combining Zilog (maker of the Z-80 CP/M chip) and Intel, maker of the 8086, 80286 and 80386 chips inside DOS machines. Not bad, we think, though a bit more machine-like in tone than we'd like for a group whose hallmark is its human personality.

What do you think, loyal members? We need a new name right away, before the BCS changes its membership application forms for another year. If you have any ideas, or want to express an opinion, either write to me or leave me a message on our bulletin board.

Battersby's Drop-in SIG

Russ Battersby, a longtime member, feels that we don't do enough for beginners and novice users at our meetings. Therefore, he has volunteered to lead a "drop-in" SIG (special interest group) before each monthly meeting, at which anyone can ask questions or ask for help on any computing subject and get some help. It began with the March meeting and promises to become popular. If you're interested, just show up around 6:30 at Ottoson and look for Russ, an enthusiastic man with a large smile, who will probably already have a cluster of chairs in a corner. MS-DOS and CP/M combined. Here's an unusual chance to get help on the most elementary subjects without feeling embarrassed about taking up other people's time.

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